Features

Designed for versatility and performance, the DFE-530TX+ Adapter provides the following features:

- Wake-On-LAN (WOL) provides great utility for power management of a PC.
- Operates in a PCI Bus Master slot of a Pentium/486 computer, independent of CPU speed.
- PCI Bus Master memory access, for high throughput and low CPU demand.
- 32-bit Intelligent Ethernet controller.
- Complies with IEEE 802.3 100Base-TX and 10Base-T Ethernet standards.
- Plug and Play installation.
- RJ-45 connector for network cable connection.
- 100Mbps Fast Ethernet or 10Mbps Ethernet data transfer, selected via auto-negotiation.
- Full duplex or half-duplex operation, selected by auto-negotiation.
- Built-in FIFO buffers reduce overhead of memory transfers.
- Two LED indicators: Link, Activity.
- Drivers† for all leading Network Operating Systems.

Installation

Installing a DFE-530TX+ Ethernet Adapter requires hardware installation first, then software installation.

Unpack and Inspect

CAUTION: *Under ordinary circumstances, a DFE-530TX+ card will not be affected by static charge as may be received from your body during handling of the unit. In special circumstances where you may carry an extraordinarily high static charge, it is good practice to reduce the charge by touching a ground before handling the adapter card.*

Open the shipping carton and carefully remove all items. In addition to this User's Guide, ascertain that you have:

- One DFE-530TX+ Ethernet Adapter Card.
- DFE-530TX+ Software Diskette.

Install the Adapter

1. Shut down the computer, unplug its power cord, and remove the chassis cover.
2. If your card does not include the Boot ROM option, skip to Step 3. If your card includes the Boot ROM option, then install the Boot ROM Chip by plugging the chip into the Boot ROM Socket on the DFE-530TX+ card. The notched end of the Boot ROM Chip must be aligned with the notched end of the Boot ROM Socket (opposite alignment will destroy the Boot ROM Chip).
3. Insert the contact edge of the DFE-530TX+ card into the connector of any available PCI Bus Master expansion slot. Press the card firmly into the connector and ascertain that the card's contacts are fully seated in the connector.
4. Install the bracket screw which secures the card to the computer chassis.
5. Replace the computer's chassis cover.
6. Reconnect the computer's power cord, and switch computer power on. If the BIOS section of your computer's boot program is Plug and Play compliant, then at power-up the BIOS will automatically configure any newly installed DFE-530TX+ adapter.

NOTE: Due to a fault in some Plug-n-Play BIOS programs, sometimes a newly installed adapter is assigned an Interrupt Number which is already assigned to another device. In such a case, the conflict of Interrupt Number will cause faults in the behavior of both devices. It will then be necessary to run the CMOS Setup utility, and manually assign a non-conflicting Interrupt Number.

Connect the WOL Cable

The WOL Cable is an interconnect cable with standard 3-pin connectors on each end. Installation of the WOL Cable is as follows:

1. Connect either end connector of the WOL Cable to the NIC WOL Connector. Both ends of the WOL Cable are identical, so either end may be used.
2. Refer to documentation and examine the PC's motherboard for the location of the motherboard's WOL Connector. The actual location is system dependent, but the motherboard may have a label like **"WOL"** printed beside the WOL Connector.
3. Refer to the *Connect the Network Cable* section to install the network cable to the NIC.
4. Power-ON the PC and press the <Delete> key to enter the BIOS CMOS Setup. Enable the WOL function or the power-ON function of the PC. The name of this function is architecture dependent, but may be located in a category heading titled something like *Power Management*.
5. Upon establishing the WOL Cable connections, test the WOL function from a remote PC or the PC, that has the NIC installed, to make sure the NIC is functioning properly.

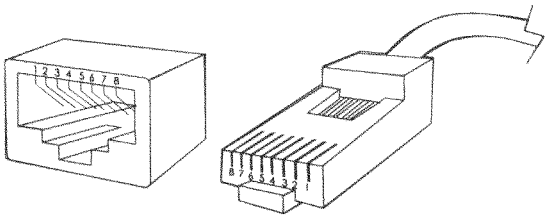
NOTE: *If your system's motherboard's WOL Connector does not fit the WOL Cable or have 3 pins, do not attempt to force a connection or alter the components to fit. Doing so could permantly damage your computer.*

Connect the Network Cable

Category 5 UTP cable qualifies for both Fast Ethernet and Ethernet cabling rules. The maximum length of any single cable run between any station and its supporting hub is 100 meters. The maximum length of a cable joining two hubs is 10m in general, but is 100m when both hubs qualify as Ethernet Class 2 Repeaters (*all* D-Link Ethernet hubs qualify). However, these cable runs may need to be shorter than the given individual maximum lengths, because their lengths are globally restricted by the rule that the maximum *aggregated* cable run between any two stations is 205m.

Connecting for Fast Ethernet (100Mbps)

Category 5 UTP cable is required for Fast Ethernet operation. The maximum cable run between the DFE-530TX+ and the supporting hub is 100m. The cable must be *straight* (not a *crossover* cable), with an RJ-45 plug at each end. Make the network connection by plugging one end of the cable into the RJ-45 jack of the DFE-530TX+, and the other end into a port of the supporting hub.



Connecting for 10Mbps Ethernet

Category 3, Category 4, and Category 5 UTP cable, as well as EIA/TIA-568 100-ohm STP cable, all qualify under Ethernet cabling rules. The maximum cable run between the DFE-530TX+ and the supporting hub is 100 meters. The cable must be *straight* (not a *crossover* cable) with an RJ-45 connector at each end. Make the network connection by plugging one end of the cable into the RJ-45 jack of the DFE-530TX+, and the other end into a port of the supporting hub.

Software Installation

On account of the great variety of network environments for which the DFE-530TX+ may be used, and revisions of those network systems, the instructions for software installation are given as README files on the DFE-530TX+ Software Diskette. Review the root directory README for overview information, and for full installation details, see the README and referenced instruction files in the sub-directory appropriate to your network operating system.

Troubleshooting

If you experience any problems with the adapter, first verify that the appropriate driver is loaded, that the proper grade of cable is employed for the network connection, and that the supporting hub is functioning properly.

1. Ascertain that the adapter card is fully and firmly seated in the slot connector.

2. Check the length and rating of connecting cables.

3. Ascertain that the adapter PCI slot is not deactivated at the BIOS level. The CMOS Setup utility in PCI computers ordinarily provides the option to activate or deactivate PCI slots.

4. Replace the adapter in question with a verified adapter and run the diagnostic test again.

5. Install the questioned adapter in another PCI computer and run the tests again.

6. Remove all other PCI adapters from the computer and run the tests again. If the verification/diagnostic run is then normal, then there is probably an interrupt number conflict which will have to be resolved manually by a CMOS Setup utility run after you have reinstalled all of the expansion cards.

The DFE-530TX+ Adapter features two LED indicators to assist in the resolving of network problem diagnosis:

- **LINK Indicator**

  Steady green indicates good linkage between the DFE-530TX+ and its supporting hub.

- **ACTIVITY Indicator**

  Flashing green indicates that the adapter is sending or receiving.

B

Specifications

Network Type:

- Fast Ethernet 100Base-TX

  IEEE 802.3u standard for 100Mbps baseband CSMA/CD local area network

- Ethernet 10BASE-T

  IEEE 802.3 standard for 10Mbps baseband CSMA/CD local area network

Jumperless Hardware

Auto-negotiation functionality

Media interface: RJ-45

EMI Compatibility:

FCC Class B
VCCI Class B
CISPR B
Canada ICES-003, Class B
CE Certification, Class B
C-Tick

Host interface: PCI 2.1 Bus (Bus Master)

I/O & IRQ base address: assigned by Plug and Play system

Physical Dimensions: 13.9 cm x 7.3 cm

Environment:

Storage: –25° to 55°C, (–13° to 131° F)

Operating:0° to 55° C, (32° to 131° F)

Humidity: 10% to 90% non-condensing

Power Consumption: 2W (400mA @ 5V) max

PCB Layer: 2 layers

Software drivers‡ for:

- √ Microsoft Windows 95, 98
- √ Microsoft Windows NT3.51, NT4.0
- √ Microsoft Windows 2000
- √ DECnet PathWorks v4.0
- √ Microsoft Windows for Workgroups 3.11
- √ IBM Communication Manager v1.0
- √ Microsoft LAN Manager V2.1
- √ IBM LAN Support Program v1.3x
- √ IBM LAN Server v4.0, V3.0, v2.0
- √ Novell Netware 3.x, 4.x , 5.0 ODI driver
- √ Win/TCP PathWay Access for DOS v1.1
- √ NDIS driver
- √ Packet Driver
- √ FTP PC/TCP